

# MOVING FORVARD



# MESSAGE FROM THE VICE CHANCELLOR

# Embracing a Better and More Bountiful Tomorrow

### Assalamualaikum warahmatullahi wabarakatuh and hello everyone.

The days that passed since our last publication have been eventful. It may be a little disheartening to see the state of the current pandemic situation today, but I assure you that things can only get better from here onwards. With the new year dawning upon us, and as we get ready to bid 2020 goodbye, we had some significant challenges we have had to undertake due to the COVID-19 pandemic.

No student left behind despite financial difficulties during

COVID-19. By working together and supporting each other, we can ensure that students in need can continue their studies and no one is left behind.

Research activities were resumed smarter and safer. As a Research University, our Research & Innovation is extremely important and moving forward, we must reconsider our usage of time and space so we can establish an efficient method of research that minimises the risk of infection.

> Nonetheless, we also have causes and momentous occasions to celebrate. From recognition to new milestones, these events are a testament to our continuous pursuit of excellence.

I would like to thank all UTP staff, students and

faculty members for staying safe amidst the pandemic. Nothing has changed as far as our sentiments towards our UTP family are concerned: we will continue to prioritise the safety and wellbeing of the UTP community while supporting students as they strive to achieve their goals during this difficult time. I admire all of you for practicing sound judgment and patience at a time when we are facing various obstacles and restrictions. We are all in this together, and at this stage, #KitaJagaKita is no longer a novelty catchphrase, but a sensible way of life in this new norm.

Wrapping up the year, we have more to do to stay ahead. We hope that we have made an impact in this unprecedented time. Traditionally, scientists and engineers have sought solutions that eliminate inconvenience and discontent. The COVID-19 pandemic has brought plenty of both to the world, but it may also be leading us to better times. I see this as a unique opportunity for all of us to see out new challenges. This pandemic has changed lifestyles drastically, but your talent and flexibility, coupled with a solid knowledge of advanced science and technology, will allow you to create real impact as the world emerges from this crisis.

Finally, I want to reiterate that the safety of you and your loved ones is of the utmost importance. While keeping that foremost in our thoughts, we can continue to work together, remain determined, and move towards a better tomorrow.

It has indeed been an exhilarating year for us at UTP. I would like to take this opportunity to wish you a Happy New Year and may 2021 bring forth many fruitful returns to all our readers. Do reach out to us if you have any feedback or queries. Thank you and happy reading.

Prof Ts. Dr Mohamed Ibrahim Abdul Mutalib



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### **COVER RATIONALE**



To wrap up 2020, the COVID-19 pandemic has impacted the higher education landscape, posing complex and unprecedented challenges to universities. UTP takes a look at headways into the future, examining the concrete steps

we are taking as we journey into an increasingly fast-paced and complex higher education environment. It's an environment which calls for stronger collaborations within and across all of our stakeholders. The University is preparing for the upcoming academic year and adapting their strategies to address the ripple effects of the coronavirus crisis.

### UTP REIGNS AS MALAYSIA'S NUMBER ONE PRIVATE UNIVERSITY IN QS Asian Rankings

Good news! UTP has once again retained its position as the nation's number one private university in the QS Asia University Rankings 2021. We are proud to announce that our university now ranks 70<sup>th</sup>, a 12-spot jump from the 82<sup>nd</sup> position last year.

This achievement inadvertently propelled UTP in the top 11% out of 634 published institutions in the rankings.

Since our debut in 2016, UTP has been on an upward trajectory and improved

significantly in the rankings. For five consecutive years, it has consistently climbed the rankings, from 127 in 2017 and 101 in 2018. In 2019, we clinched the 99<sup>th</sup> spot and broke into the Top 100 for the first time. In 2020, we climbed 17 more places to reach the 82<sup>nd</sup> place. UTP has now risen 57 places in the rankings since 2016.

UTP has improved its performance across four of the eleven metrics utilised by QS, namely academic reputation, employer reputation, staff with PhD and inbound exchange students.



### A NEW MILESTONE FOR UTP AND MALAYSIA: DR TANG TONG BOON Named First Malaysian to receive the mountbatten medal

UTP's very own Associate Professor Dr Tang Tong Boon has been awarded the Mountbatten Medal, one of the Institution of Engineering and Technology's (IET) Achievement Awards. Dr Tang joined the ranks of other world-leading engineers when he was recognised by the Institution of Engineering and Technology Achievement Awards.

Our heartiest congratulations to Dr Tang on receiving the Mountbatten Medal for his contribution to the advancement and promotion of neurotechnology and its applications in mental healthcare. He is recognised for his pioneering work on functional near- infrared spectroscopy (fNIRS) in Malaysia.

### Key Facts:

- The IET Achievement Awards, which recognise some of the world's top engineering talent, acknowledge individuals who have made an exceptional contribution to the advancement of science, engineering and technology in any sector, either through research and development in their respective technical field or through their leadership of an enterprise.
- The Mountbatten Medal was established by the National Electronics Council in 1992 and is awarded annually for an outstanding contribution, or contributions over a period, to the promotion of electronics or information technology and their application.

### About Dr Tang

- Received a BEng (Hons) and PhD in Electronics and Electrical Engineering from the School of Engineering, The University of
  - Edinburgh, in 1999 and 2006, respectively.
  - Joined UTP in 2012 as an Associate Professor in Electrical and Electronic Engineering. His research centre, the Centre for Intelligent Signal and Imaging Research UTP, has been conferred the status of Malaysia Higher Institution Centre of Excellence (HICOE), one of the 20 centres across all the disciplines.

Received the Lab on Chip Award in 2006 and the IET Nanobiotechnology Premium Award in 2008. He was a Governing Board Member of International Neuroinformatics Coordinating Facility (INCF) and a Visiting Professor to the National Taiwan Normal University.

- Currently serves as the Secretary of the HICoE Council, and the Chair of the IEEE Circuits and Systems Society Malaysia Chapter.
- Founded the OT-HUB, an international collaboration platform to promote fNIRS related research. He led the development of EEG-fNIRS bimodal systems and their application to mental stress studies. The work has recently been translated into a fatigue management system.
- Instrumental in creating the analytical tool to identify cognitive function deficits due to traumatic brain injury, to help nursing schools analyse nursing students' mental state and counter high drop-out rate, and to develop a new cognitive training system for Alzheimer's disease diagnosis and prevention.
- Produced over 120 publications and supervised 10 postgraduate theses.

Dr Tang said: "It is with great honour that I accept the Mountbatten Medal from the IET as a mark of my accomplishments in the advancement of neurotechnology and its applications across the Asian region. I have been extremely fortunate to work with many brilliant collaborators and graduate students. I would also like to thank UTP management for the support. Congratulations to all the other engineers and technologists recognised for their pioneering work."

Professor Danielle George MBE, IET President, said: "We are honoured to present these talented individuals with our Achievement Awards. They have each excelled in their professions and have made a vast contribution as pioneers of important areas in the engineering and technology industries. They should all be very proud of their achievements – they are amazing difference makers."

The winners, who were nominated by their peers, and selected by a panel of IET judges, are leading engineers and technologists across the globe.

For more information about the IET's Achievement Awards, visit: www.theiet.org/techawards

### VIRTUAL EVENTS

# MAKING EDUCATION HISTORY: UTP CONCLUDES FIRST EVER ONLINE TEACHING AND LEARNING INNOVATION FESTIVAL (TLIF 2020)

For the first time ever, UTP's 6th Teaching and Learning Innovation Festival (TLIF 2020) was held entirely online via the CETaL Teams platform on 8th October 2020.

With the primary goal of advancing innovation in higher education for teaching and learning empowerment, TLIF 2020 was considered a success despite it being held online due to the current situation pertaining to COVID-19.

With the pandemic throwing a wrench into virtually every corner of the education sector, each of us in UTP has had to adjust our teaching and learning styles to retain programme enrolment and provide accessibility to students. As the education sector is an essential sector, our business of teaching and learning continues to brave the challenges brought on by the pandemic.

It was no different for TLIF committee members who have had to pool ideas and resources to pivot, and make TLIF 2020 a success. We would like to thank everyone involved, teachers and learners alike, during the entire journey culminating in the festival successfully disseminating best practices in Teaching and Learning (T&L) within the context of the higher education classroom. It is our hope that all knowledge shared in the event can be implemented sustainably within future courses and programmes, thus enhancing student performance as well as the overall teaching and learning experience.

In dealing with the impact of COVID-19, here's how we've been implementing mitigation measures:

- Clear and frequent communication of expectations and engagement between students, lecturers and members of the Student Representative Council. This is done through e-mails, social media channels, and also via announcements in UTP's Learning Management System by the COVID-19 Emergency Response Team.
- 2. Providing a solid online learning infrastructure via an established Learning Management System. The magic happens on our Moodlepowered ULearn learning platform and the Big Blue Button (BBB) virtual classroom platform which is also integrated with Moodle.
- Crafting a provision of guidelines for teaching, learning and assessment within a virtual learning context. This involves designing questions that are constructively aligned with Blooms Taxonomy, along with assessment questions that tally with the learning outcomes.
   Providing comprehensive lecturer training. This ensures all lecturers
- are well-equipped and ready to embrace teaching and assessment within an online learning ecosystem.
  5. Systematic monitoring of T&L quality. This is done in several
- 5. Systematic monitoring of T&L quality. This is done in several phases: Before opening of the university, a survey will be created and disseminated to track lecturers and students connectivity. Upon returning to campus, no efforts are spared to collect data pertaining to monitoring of infrastructure, feedback from Student Representative Council via special engagement session, as well as from students via Learning Satisfaction Polls, ULearn and BBB audits.

With these mitigation measures in place, UTP has provided remote access facilities to support all of our staff and e-learning platforms to enable seamless T&L experience as well as research work activities. The online T&L is further enhanced with smooth virtual experience that allows both staff and students to have a more dynamic and autonomous role. These mitigation measures will be improved over time and refined to set the best standards in managing T&L during these unprecedented times.



## VIRTUAL-LY SMART: UNLOCKING DEEP AI POTENTIAL AT THE INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE 2020

Recently on 8-9 October 2020, UTP hosted the International Conference on Computational Intelligence (ICCI) 2020 event which was held 100% online. Held over the period of two days, this virtual event was organised by the UTP's Computer and Information Sciences Department (CISD).

The event was held to celebrate recent achievements in Artificial Intelligence, furthering the production of intelligent technologies and autonomous robots at the service of man, in an ethical environment.

### ICCI 2020 at a glance:

- No. of papers received 74
- No. of papers : Accepted 59, Rejected -15
- Papers from: International-17, National 12, UTP 30
- No. of Co-organisers 5
- No. of registered papers 59
- Conference fee RM 625.00
- No. of reviewers involved: UTP 40 / External 20
- No. of Graduate Assistant involved -16

Earlier on, there was a call for presentation papers of recent results related to CI algorithms, software systems and architecture, data analytics, current challenges, and new-andemerging applications. Presentations related to the industry, novel applications and emerging CI theory and concepts were strongly encouraged. Prior to the event, 74 papers have been received from a talented pool of academics, researchers, professionals, industrial representatives, students, and practitioners whose interests are in fundamental studies to emerging applications in computing.

#### Keynotes

1. Realising the Promise of Data and AI Speaker: Dr. Dzaharudin Mansor, National Technology

Officer, MICROSOFT Malaysia. 2. IoT - A New Frontier in IR 4.0 Speaker: Dr. Mazlan Abbas,

CEO, FAVORIOT

3. An Insight into Academic Research and Publications Speaker: Dr. Balamurugan Balusamy, Professor of Galgotias University India.

4. Deep Learning for Cancer Diagnosis Speaker: Dr. Tri Chong Pham, CEO, FPT Malaysia Office, FPT University, Vietnam



# REIMAGINING ARTIFICIAL INTELLIGENCE (AI) FOR SMART COMMUNITY

International Virtual Conference On Artificial Intelligence For Smart Community or IVC-AISC 2020, held virtually for the first time this year, was jointly organised by the Centre for Graduate Studies (CGS), Universiti Teknologi PETRONAS (UTP) Malaysia and Department of Biomedical Engineering, Dr.NGP Institute of Technology (Dr.NGPIT), India.

With the theme of Reimagining Artificial Intelligence (AI) for Smart Community, the conference provides an excellent international platform for academics, scientists, researchers and industry practitioners to exchange and share their research findings in Artificial Intelligence (AI) disciplines. The conference received more than 200 papers submission, 189 papers acceptance from 7 International countries scheduled in 18 parallel sessions on 17 & 18 December 2020.

Despite the challenges faced with erratic Internet connection, each presenter and keynote speakers succeeded in presenting their findings live via UEvent's OnAir. This is due to the enormous support and full dedication shown by our diligent postgraduate leaders during the process of accepting and reviewing academic submissions, the presence of Chairs and Moderators for parallel sessions among lecturers and experts in the research area from UTP and Dr.NGPIT, the accountability displayed by the Postgraduate Student Council who were committed to host parallel sessions with patience as well as UTP's Centre for Graduate Studies and Event and Conference Management staff to manage all matters pertaining to the event's technical setup.



# DISSECTING THE FUTURE CLIMATE OF GLOBAL OIL & GAS



The inaugural International Webinar: The Future Trend in Upstream Oil & Gas: Academic and Industry Perspective event was held recently on 10 December 2020. The event was jointly organised by UTP's Centre for Subsurface and Seismic Imaging (CSI), Institute of Hydrocarbon Recovery (IHR) and Lumina Technologies, Inc.

### UTP IHR

The Institute of Hydrocarbon Recovery (IHR) is UTP's very own unique research centre that tackles ideas and challenges of major hydrocarbon recovery in the community and the environment.

### **UTP CSI**

The Centre of Subsurface and Seismic Imaging (CSI) is the link between skills, competencies and product application as practiced by the oil and gas industry. Lumina Technologies, Inc. Lumina Technologies provides the oil and gas industry's most advanced seismic spectral and quantitative analysis software via applications designed for ease of use and integration with everyday geoscience workflows.

The pandemic has greatly impacted all major global industries, and the oil and gas sector is not exempt in these unprecedented times. This event exposes participants to a wealth of insights including current research findings, emerging technologies as well as future opportunities in the oil and gas industry as outlined by a panel of esteemed experts:

Topic: Constructing 3D	Topic: Upskilling of	Topic: Increase Oil Pro-	Topic: Future Technology
Reservoir Models From	Conventional O&G Era	duction Through ARG - a	in AI/Machine Learning for
Seismic Data	Towards Digitalisation &	Waterflood Improvement	Upstream O&G
Prof Dr John Castagna	Sustainability Profiles	Technology	Assoc Prof Dr Syahrir
Professor & Director, Cen- tre for Applied Geophysics (CAGE), University of Houston	Dr M Faizal Sedaralit Head, Chief Scientist, PETRONAS Research Sdn Bhd	Dr Renqi Jiang CEO, Lumina Technologies Inc	Ridha Director, Institute of Hydrocarbon Recovery (IHR) Universiti Teknologi PETRONAS

A big thank you to everyone who made this enlightening event possible!

# LEAPING FORWARD INTO A DISCOURSE ON DECOMMISSIONING

# Industry Meets Academia (IMA) 2.0 Webinar Series: Decommissioning: Bridging Academia & Industry

Recently on 24 December 2020, UTP jointly organised and hosted the IMA 2.0 with PETRONAS and Malaysian Oil & Gas Services Council (MOGSC) under the theme: 'Decommissioning: Bridging Academia & Industry Through Collaboration'. This event successfully marked the end of the series of four IMA webinars held since November 2019.



With the objective of bringing together expert speakers from both academia and the industry, the event successfully achieved this as a vast knowledge of insight concerning technologies, innovation, challenges and experience in decommissioning was shared by professionals from renowned universities and industry organisations.

### **Primary goals**

- To expand the medium in connecting Malaysian universities and other regional plus international universities on decommissioning
- To promote knowledge sharing and future collaboration for execution deployment
- To enhance tech know-how in decommissioning with support from academia
- To utilise researches as an aid in decommissioning decision making

The event kicked off with a warm welcome by UTP Deputy Vice Chancellor Research & Innovation, Prof Ir Dr M Shahir Liew, followed by an engaging opening speech by Encik Zamri Jaidi, Head of Construction, HUC and Decommissioning (CHCD).

The main agenda consisted of two panel sessions: "Onshore Decommissioning - Oil & Gas vs Energy Industry" and "Decommissioning and Abandonment Sustainable Solution". One of the biggest highlights of the sharing session was the presentation of three technical papers by PetroVietnam University, UTM, UM and UTP presenters.

Moving forward, IMA 3.0 seeks to uncover more technological and financially viable solutions for decommissioning and abandonment, and it is safe to say that we expect to see more inclusivity and collaborative participation across local and international members of academia and the industry.

### ENRICHING STUDENTS' EXPERIENCE

### WINNING INNOVATION THROUGH ENTREPRENEURSHIP AND TECHNOLOGY: UTP TECHNOPRENEURSHIP TEAMS WIN AWARDS IN THE MAGIC UNIVERSITY STARTUP CHALLENGE 2020 (USC2020)

Recently, on 21st October 2020, our esteemed UTP Technopreneurship teams brought home the MaGIC University Startup Challenge 2020 (USC2020) award.

Our heartiest congratulations to our very own UTP technopreneur teams for their achievements in the recent MaGIC USC2020 event, and for once again bringing pride and honour to the UTP family.

### Who they are

- Team JomCut Shantha Kumar A/L Parameswaran (Petroleum Engineering). Team JomCut clinched 3rd place in the Public Voting category in the Technological Track to bring home the RM 2,000 prize.
- Team Bazaar Rakyat Iskandar Danial Bin Adam Adonis (Petroleum Engineering) and Putra Nazaratunnaim Bin Zaidi (Petroleum Engineering). The team wowed the judges and went one to win capture the position of Champion for Public Voting in the Social Innovation track (RM 10,000 cash prize) and 2nd place for the Judges' Selection in the Social Innovation track (RM 5,000 cash prize).

### Journey of champs

Both teams began their entrepreneurial journey at UTP in their first and second year of study. They were also the recipients of MicroBiz seed funding provided by the Technopreneurship Office and Yayasan UTP. Their achievements only serve to prove that anyone can be successful with an early start, even with small startup capital. Values that brought them where they are today include patience, perseverance, diligence and networking acumen that helped develop their venture.

Thank you to all students and faculty members who voted for our UTP champs - we truly appreciate your support!

We hope this win will inspire many more students to follow in their footsteps. It's never too late to dream big. Here's to taking that first step, identifying a problem and building a venture by solving that problem.

### A NEW PLATFORM FOR KNOWLEDGE SHARING: The Southeast Asia global innovation Challenge (SEA-GIC)

Many participants and delegates tuned in virtually in a wonderful show of support for UTP's opening welcome at the Southeast Asia Global Innovation Challenge, or SEA-GIC 2020. We were the proud host of SEA-GIC, organised annually by the American Chemical Society's (ACS) Malaysia Chapter. Needless to say, it was a great opportunity which we were thankful to receive, and the entire UTP team rose to the challenge of hosting a virtual platform for knowledge sharing, intellectual discussion and networking on our shared areas of interests for academics, researchers, scientists, interest groups and industry experts from all around the world.

More than 135 participants took part in the event, with half of the total number coming from the neighbouring countries of Indonesia and Brunei. In spite of the unprecedented times that we are all experiencing, SEA-GIC was successfully held to promote innovation among undergraduates from Southeast Asia and to address the ever-challenging global issue of climate change. This issue has been championed by Greta Thunberg, the Swedish environmental activist, who proclaimed "Right here, right now is where we draw the line. The world is waking up and change is coming whether you like it or not." SEA-GIC is timely as it encourages participants to stage interesting, interactive scientific demonstrations that showcase and spark curiosity and interest in climate change.

Aptly themed 'Battling Climate Change through Chemistry', the challenge looks for practical and affordable ways to resolve this key global issue. Presentations were evaluated in terms of the viability of the solutions, cost-effectiveness, impact of the projects and the ability for industrial scale-up, by distinguished judges from industry and academia. Participating students

Mage University Startup Challenge 2020 Finale Judges' Selection Award Social Innovation Track Champion 2nd Place 3rd Plac VENTUR BAZAAR-RAKYAT Ventur BazaarRakvat Studio Dietitio 4th Place 5th Place **Bio Sekita** Halus Enterprise FixColab monsta MaGIC University Startup Challenge 2020 Finale **Public Voting Award Technological Track** 2nd Place 3rd Place Champion DR SPORTS 10m Senang **Dr** Sports Senang Print JomCu cial Innovation Tr Champion 2nd Place 3rd Pla AZAAR-RAKY Bio Sekita Enterprise BazaarRakyat FixColab monsta

### ENRICHING STUDENTS' EXPERIENCE

followed scientific processes, closely asking questions, designing experiments, testing ideas, logging data and drawing conclusions from their findings. These steps are central to achieving success in many different areas of Science, Technology, Engineering and Maths, (STEM). The critical thinking, problem solving and communication skills that all participants developed during these projects are also important foundation skills for future careers. It is also important to note that these skills are in high demand by employers and will become more and more essential for the jobs of the future.

Young people are our future leaders and should be on-boarded as advocates for issues of climate change. This is also aligned with the Sustainable Development Goal (SDG) 13 which aims to "take urgent action to combat climate change and its impact". Participants at SEA-GIC 2020, were answering the call to

- strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries,
- integrate climate change measures into national policies, strategies and planning and
- improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.

As climate change becomes a global emergency, it is hoped that a coming together of minds will provide significant inputs for finding solutions to restore a conducive climate for living species to continue to thrive. In Southeast Asia, like any other developing region, it's necessary to take urgent actions to adapt to climate change, build resilience, and minimise the costs of the unavoidable impact of GreenHouse Gas (GHG) emissions already locked into the climate system. Setting mutually realistic and achievable goals and binding emissions limits, which will create new markets for new technologies and new ideas will, in turn, expand the boundaries of possibility and create new hope, living up to the aspirations of the Kyoto Protocol.



### LEADING INNOVATION AND DESIGN AT THE SEDEX 44 Exhibition: A Winning Combo of Teamwork and Digitization

The 44th Science & Engineering Design Exhibition's (SEDEX44) 11th & 12th November 2020 theme is "Discover. Challenge. Innovate". Officiated by Assoc Prof Dr Nurlidia Mansor, Director of The Centre for Student Development (CSD), 336 students submitted 124 entries under four different categories.

On behalf of the organising committee, we would like to congratulate all the award recipients, the students and respective supervisors for their achievements. We would also like to convey our deepest appreciation to all involved for the support given throughout the SEDEX44 virtual event, especially to:

- Deputy Vice Chancellor, Student Affairs,
- Prof Dr Nor Hisham Hamid
- Director of Centre for Student Development, Assoc Prof Dr Nurlidia Mansor
- FYP, ETP, STP and TTP coordinators
- Our panel of juries (UTP lecturers)
- ...and everyone else who has made this event a success!

Despite the Conditional Movement Control Order, we are continuing the legacy of SEDEX as a platform for UTP students to showcase their products and ideas in the name of creativity and innovation. In the era of digitalization, we are committed to providing enriching and rewarding experiences for our students through our reliable virtual platforms.

OUTP

We would also like to acknowledge the hard work of our SEDEX44 Committee student members in organising this event, which showcases their teamwork, creativity, professionalism and project management capabilities carried out remotely across more than 30 different locations nationwide.



# GREAT MINDS THINK ALIKE: Sharing Thoughts And Sparking Conversations

UTP recently concluded its inaugural THOUGHTS session, an online event created to encourage ongoing conversation amongst members of our UTP community.

For our first THOUGHTS session, we were honoured to have Dr Chong Su Li share her presentation on "Understanding Knowledge Production: What, Why and How". Dr Chong is from the Department of Management and Humanities and also the Institute of Self Sustainable Building and is a pivotal icon in UTP due to her experience spearheading University Social University (USR) efforts.

Dr Chong started the sharing session by expressing her hopes that this inaugural virtual event would be a good platform for online sharing sessions for the university community. On the subject of knowledge production, key points from the sharing session include:

- It takes collective courage to overhaul the education system
- Knowledge production is not neutral
- Epistemological thinking is critical for new knowledge production

All in all, strong participation from the attendees reinforced our commitment to provide a platform for our UTP family to gain new knowledge and encourage students to emulate knowledge in the future.

Dr Chong looks forward to both academic and nonacademic staff sharing ideas and opinions and hopes that this will be the beginning of a new culture on campus. The focus of these online sessions should be to raise questions related to knowledge production and provide valuable answers to important questions about the Malaysian Education System.



# SHARING INSPIRATION: COFFEE CHATS SESSION WITH TWO MEMBERS OF THE UTP'S STUDENT DEVELOPMENT ADVISORY COUNCIL (SDAC)

On the 6th November 2020, the Alumni Relations Office in collaboration with the Centre for Student Development and the Computer and Information Sciences Department organised a Virtual Coffee Chat Session with two members oof the UTP's Student Development Advisory Council (SDAC):

- The first speaker was Dr Putri Afzan Maria Zulkifly, Managing Director of EYTC Group & Resources Sdn Bhd, and the Founder of KinderKaizen & Sri Aria School.
- The second speaker was Puan Maria Teo, Head of Organisation Development & Design, Human Capital Expertise at Group Human Resource Management of PETRONAS.

Both speakers are Bachelor's degree holders in Information & Communication Technology and have been actively connecting back to UTP through their continuous support and expertise sharing on various relevant matters related to students' development at the university. They gave encouraging examples based on their life journey, from their experiences way back on campus to their own respective current careers. They focussed on positive values such as; self-realisation, mindfulness and being resilient in managing setbacks to achieve success in life.

This session was indeed inspiring as viewers listened to how these two prominent alumni leaders expanded their tech knowledge and skills and transformed them into people development and social skills, providing a sense of direction and insights into the possibilities that lie ahead, all for the betterment of the community.

We wish them both all the best!

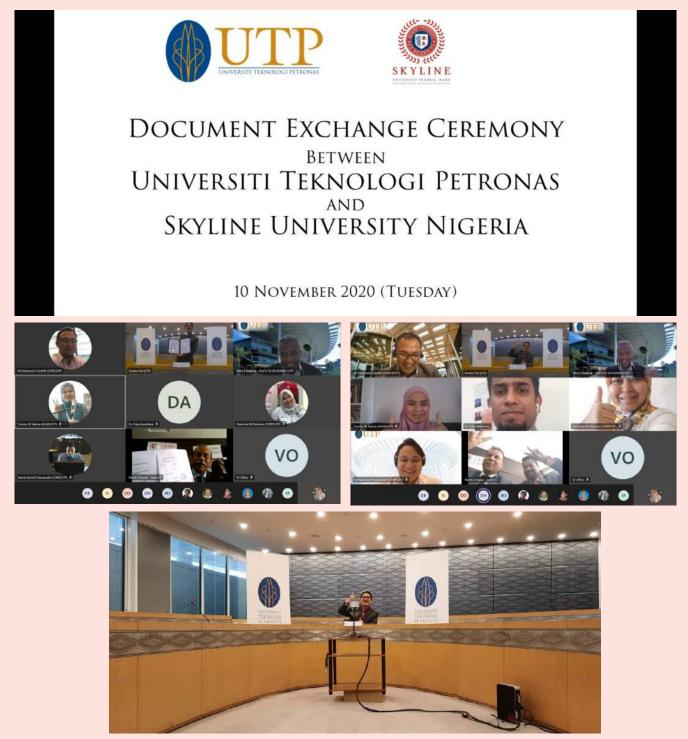


# ADDING NEW VALUE DIMENSIONS WITH INTERNATIONALISATION

UTP recently exchanged Memorandum of Understanding (MoU) documents with Skyline University Nigeria (SUN), a leading private University in Kano, Nigeria, for academic-research networking on 10th November. At this virtual exchange ceremony, UTP was represented by its Vice Chancellor, Professor Ts. Dr Mohamed Ibrahim Abdul Mutalib while SUN was represented by its Vice Chancellor, Dr Sudhakar Kota.

Both Universities will collaborate in the areas of staff and student exchange programmes, the exchange of curriculum design best practices, as well as collaborative research and internship opportunities.

Signing this MoU was an important step in maintaining a sustainable relationship between UTP and institutions in Africa. With this collaboration, we hope that it will pave the way to attract more prospective students from African countries to study at UTP.



# UNIVERSITY SOCIAL RESPONSIBILITY (USR) EDUCATION PILLAR SPOTLIGHT With USR Education Pillar Leader Dr Chong Su Li

Strengthening the Education Pillar through Volunteerism and a Thirst for Knowledge

Universiti Teknologi PETRONAS is first and foremost, an education provider. Our business is education. So the connection across institution, community and education is really at the core of our DNA. When I think about my own involvement in outreach work, I go back to 2007 when under the PETRONITA Education Bureau led by Associate Professor Dr. Cecilia Devi Wilfred, a small group of UTP lecturers volunteered to do afterschool teaching in three of our closest community primary national and vernacular schools in Tronoh. Backed by our different qualifications, we taught English, Math and Science. This was done on a fortnightly basis across a year. The ties that we formed with the community and the schools lasted a long time. I found the experience to be deeply rewarding. Very soon after that, I also had the good fortune to work with Dr. Sumathi Renganathan who led longitudinal participatory research work that combined with outreach activities, this time with the indigenous Semai community in Bota. In that time, I learned how to combine research with outreach and saw firsthand, how lives can change when genuine relationships are not only built but sustained across time.

Therefore today, I see our university's USR activities as a brilliant formalisation that brings together of a lot of t h e good work that had been done by UTP's community with the surrounding society.

In March 2020, Professor Noorhana Yahya the-then USR Education Pillar Leader sent out an open invitation for interested staff to form the USR Education Pillar committee. I responded to the invitation immediately as I wanted to put my own training within the education field to good use. I also felt very strongly a b o u t enhancing U S R outreach and was thrilled to join t h e

E-STREAM WAVES 2020 project which was led by Professor Noorhana. As it turned out, by the end of 2020, I was given the privilege to take over the position of USR Head of Education Pillar. I am aware that when I look back at those whom I had worked with and who had led the way, I am merely standing on the shoulders of giants.



One Team, Many Hats: Sound Stepping Stones Towards Success and Continuity of USR Education Programmes

To a certain extent, when we carry out outreach activities, we have to wear a number of hats. First, we must consider and relate ourselves as members of our institution by prioritising our institution's mission and vision in the larger scheme of things. So, if I'm a lecturer in UTP, then I must know what UTP stands for that's our first duty. That's the first hat we wear.

Next, as we proceed to broaden our perspective to understand the community surrounding us, we need to put ourselves in the shoes of the members of the community in order to bridge the gap and meet the needs of the community. I would ask myself, if I'm a parent of a child in a nearby school, what would I like for the nearest higher learning institution to do for my child? After all, we are all part of the community. And when it comes to brainstorming for ideas within the USR education pillar, we bring to the table our own strengths, our expertise, our past training, relevant networks and connections to deliver measurable results. Leveraging on our collective pool of experience and expertise as academics, we then devise programmes and activities that can be a win-win for all parties.

# UTP E-STREAM WAVES 2020: A Crucial Catalyst for the Future of STEM and STREAM Education

E-STREAM WAVES was the major project that came under UTP's education pillar in 2020. The brainchild of Professor Noorhana, this project was conceived in March 2020 as a follow-up to the very successful STEM Carnival in 2019 where it garnered immense support and participation amongst schools within the Perak community.

ESTREAM WAVES 2020 was a ground-breaking event, something that we had never attempted before. This was because when the committee was formed by Professor Noorhana, it was done on the cusp of the MCO happening, literally a week or two before the whole country was closed off. Yet, we had every intention to organize an outreach event even if it had to be done completely remotely. We weren't sure if we could carry this out. As academics first and foremost, we still had to juggle between academic research work, and lectures on top of the event planning, all done during a very challenging and dangerous time.

However, the team took it as a challenge as we wanted to create awareness on STEM education through the arts and literacy which involve lessons on humanity to create awareness amongst the schoolchildren in the community around us. For this, we created 8 online competitions, each with its own unique goal.

The event was launched in May 2020 and ended in October the same year. The rate of participation was very encouraging. We had more than 1,400 certifications awarded to students ranging from preschool all the way up to secondary level across the country.

Looking back, it has been a defining moment for everyone on the team. I thought it was a brilliant project - the results were evidence that, despite not being able to meet each other, we were able to pool our hard work and resources to achieve great success. A lot should be credited to Professor Noorhana as she was the one who led the community in that direction and had made the connections to reach out to the community. It was a lot of hard work but it paid off when you see the children involved in the event.

One memorable moment I had was when I called up the mother of an 8-year-old girl who was one of the event winners. I could hear the sheer joy and excitement in their voices upon receiving the news. It has certainly been one of the most rewarding moments I had,

Overall, it has been quite challenging, but we recognised how important it was to get the Ministry of Education's endorsement of the national-level event. With the support of key NGO partners, the event made history as UTP's first public online event and will definitely be deemed the benchmark for similar programs in the foreseeable future.

# Education Challenges and Future Endeavours in Trying Times

Just like other pillars within the UTP ecosystem, the education team also faced numerous funding challenges, but we persevered and did our best to gain sustainable funding opportunities as well as like-minded partners who also believe in our goals. Mainly, we were able to carry out our projects with the sponsorship of Atomic Energy Licensing Board (AELB), Ministry of Science, Technology and Innovation (MOSTI) and the partnership of Pertubuhan Rakan Komuniti Pendidikan Perak (PRKPP). Their commitment towards enhancing society's educational goals chimed with Education Pillars goals. We had been very fortunate to have had their partnership.

Internally, we've always encouraged committee members to suggest and manage activities that are attractive and impactful enough to create awareness about STEM education but also using arts, studies on humanity and literacy of reading to create the awareness among the school students. Hopefully, this event would go on to create more funding and from there, we can try to reach out to a wider network.

Throughout our USR efforts within the education pillar, we've also placed high value on the support and encouragement garnered from our alumni. For example, in a recent project organised by PRKPP, one of UTP's alumni was invited to speak at the event alongside other members from our network of NGO partners. I would like to think that the UTP brand is well represented. This is why we will continue to harness their collective strengths and experience.

For the future, I am hopeful that with this university's concerted overall efforts, a more organised outreach system would be nurtured especially when it comes to challenges resulting from the current pandemic.

And with my soft spot for outreach work, it is my hope that the UTP family across all pillars will continue to share their talents with the community around them. If we can touch even one life, then our job is done.



Certificates and attractive prizes await!

# SENTUHAN KASIH 2020: CELEBRATING Deepavali with the spirit of giving

UTP recently teamed up with Yayasan PETRONAS and PETRONAS Dagangan Berhad (PDB) to spread Deepavali joy amongst 50 deserving beneficiaries during the Festival of Lights event in Perak, 12th November 2020.

Under the theme of "Joy With Positive Impact", the collaboration saw the distribution of 400 festive and personal hygiene care packages to various charities and homes for Deepavali as part of the Sentuhan Kasih programme. The care packages that consisted of food supplies, plush toys, tumblers, masks and hand sanitisers worth RM88,000 in total, were donated to beneficiaries in Kuala Lumpur and seven states – Johor, Kedah, Melaka, Negeri Sembilan, Penang, Perak and Selangor. The recipients were made up of orphans and underprivileged senior citizens as well as those who are vulnerable and at high risk during the COVID-19 pandemic.

In running the Sentuhan Kasih Deepavali programme, UTP also reached out to 50 beneficiaries from Pusat Jagaan Pertubuhan Kebajikan Warga Emas Emmanuel Taiping and Pertubuhan Kebajikan Ihsan Kanak-kanak Arut Perum Jothy, Ipoh. The care packages were presented by UTP Vice Chancellor, Prof Ts. Dr Mohamed Ibrahim Abdul Mutalib.

Commenting on the efforts, Yayasan PETRONAS Chief Executive Officer, Nelly Francis Shariah said, "We may not be able to celebrate this festive season in large gatherings or with regular activities this year, but good flourishes when we choose to give during challenging times. Our team is committed to offering a ray of hope during this festive season, amidst the challenges brought about by the pandemic." PDB Managing Director and Chief Executive Officer Azrul Osman Rani said, "It is a challenging time for the nation as a whole and I'm sure it is even harder for the less fortunate. We hope that through this small gesture, we can help make a difference for them this Deepavali. We are delighted to have the support of PETRONAS station dealers who helped facilitate the sourcing and distribution of items, which made the entire process a seamless one. This is indeed a time for all of us to come together to give back meaningfully to the community that sustains us."

Each year, in conjunction with major celebrations in Malaysia, Yayasan PETRONAS made it a point to spread cheer amongst underserved communities by providing much-needed items for their basic needs and well-being. In the past, activities including gotong-royong and motivational talks have been carried out by volunteers, but with restrictions currently in place, the teams have decided to distribute the care packages to bring joy to the beneficiaries.

The Sentuhan Kasih programme is part of Yayasan PETRONAS' community well-being and development focus area. The programme is also aligned with the PETRONAS Sustainability Agenda and the United Nations' Sustainable Development Goals.



# LAUNCH OF GENESYS PHASE 2 STREAM System: A Digital transformation Journey by UTP

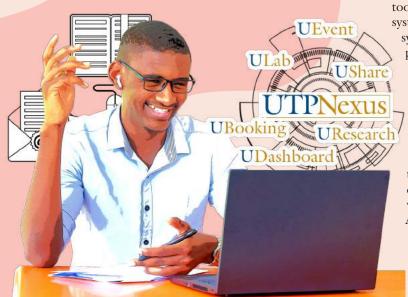
UTP's Digital Transformation programme, GENESYS journey, continues to progress the improvement of academic delivery and research capabilities towards achieving operational excellence and enhancing student experiences. Initially, the implementation was planned in three phases but the ITPSB Board, at its sitting in March 2017, approved the implementation of Phase 2 which became the combination of Phase 2 and 3 of the original plan. The programme initiated in 2014 with the first phase of implementation commencing in 2015 mainly focussed on students' systems. This consisted of UCampus, ULibrary, UShare, the UTP Website and WiFi@Celcom UTP, the upgrading of IT infrastructure and Office 365. The first phase was officially completed in September 2018.

The main focus of Phase 2 is the Research Management System (UResearch) as well as other objectives like integrations. Phase 2 also focuses on cloud solutions to efficiently manage and operate data following industry best practices.

We are now approaching the end of Phase 2 implementation and the fruits of this phase were launched in March 2020 comprising six out of 11 application systems. These are the Laboratory Management System (ULab), Event Management System (UEvent), Postgraduate Online Distance Learning (ULearnX), Facilities and Assets Management (UFacility) as well as the leveraging of two PETRONAS' systems; myPASSPORT and the Incident Management and SHIELD for HSE.

This implementation is timely in supporting the university's operations, especially during these challenging times. Without these systems; ULearn, ULab and good internet infrastructure and connectivity, it is challenging for the University to support academic delivery and for virtual learning to happen during the periods of MCO and CMCO.

GENESYS' journey marks another significant milestone in UTP's Digital Transformation. After overcoming the various challenges of procurement, technical issues and streamlining



of processes UTP has successfully implemented solutions with our partner. Now four more application systems are complete and have already been used. These are; the Research Management System (UResearch), Centralised Booking System (UBooking), University KPI Dashboard (UDasboard) under the Business Process Management (BPM) initiative and UTP Portal (NTPNexus) under the Enterprise Content Management (ECM) initiative. After these launches there still remain two more initiatives left to be completed which are the Integrated Building Management System (iBMS) and University Data Hub (UDH).

The success of these initiatives are all for the staff, students and stakeholders of UTP. It was clear that UTP needed to transform to become more resilient and sustainable and with GENESYS, UTP is positioning to be ahead of the curve.

UTP could be left behind by many other institutions because of technology. We live in a digital world where our lives are now impacted by different forms of digital applications. With technology advancing at a dramatic speed, we need to meet the needs of a generation of young people that will function in a very different workplace. Even though setbacks may occur, we are very aware of the need to future-proof the university in the face of the current forces of disruption.

Full support is required for this digital journey. Stakeholders need to be on board in utilising this system that promises to unlock greater efficiencies and opportunities through the uses of technology. With all these in place, the organisation now requires a different set of competencies. Our focus should not be on mundane or routine tasks anymore, but work that is of higher value. More critical thinking and indepth analysis should happen across the board.

The project team has worked hard through critical milestones such as business requirement sessions, testing, training and stabilization which required tremendous time and effort.

As we move towards achieving Sustainable Global Prominence, all the systems under GENESYS are important tools required to help to realise these aspirations. The systems alone are not sufficient without the people. New systems must be supported by new work approach or process, without which benefits cannot be gained from their implementation.

The implementation of the system will change the way we work to facilitate operational excellence. What's more, with digital disruptions happening across the board, in every business and all individuals, it is imperative to embrace the 'right' digital culture and tools to further complement our existing roadmap. This disruption will serve positively within UTP and coincides with GENESYS's new motto of P.A.C.E. (Participation, Acceptance, Communication and Engagement).

# UTP'S TALENTED SINGER RELEASES HER First single

Watch out world, if you have not heard of Ummu Nadiah Suhaimi! This talented lass' voice will be going live and her songs will hit the airwaves soon.

Hailing from Bangsar, Kuala Lumpur, Nadiah is a 24-year-old UTP mechanical engineering student who believes that "music is an intellectual reward for me".

And naturally so, too, as Nadiah always had a flair for singing. "It was my mother who encouraged me to sing. I started humbly with singing Nasyid songs," explained Nadiah.

Before releasing her first single 'Oksigen', a song about an inseparable couple, Nadiah's first taste of fame began when she aced the audition at a Battle of the Band event organised by UTP Virtuoso, which is UTP's very own music club.

"After the audition, UTP Virtuoso roped me in as one of their singers," Nadiah confided in a recent interview. "In a way, this provided me the opportunity to sing at numerous events inside and outside UTP."

When she isn't studying or fulfilling her internship at Universitas Gajah Mada, Indonesia, Nadiah moonlights as the lead singer of her band, Pemusik Tradisional (PETRA), which is an accompanying act that plays traditional music alongside other UTP traditional performing arts groups such as Gamelan Sanggar Kirana and UTP's Performing Arts Group (UPAG).

When asked who her mentor is, Nadiah revealed that it was none other than Zaidin M. Nor whom she fondly calls Cikgu Zaidin through her involvement in PETRA. "Cikgu Zaidin is PETRA's music instructor," she said. "After several years being his student, he offered me to sing his song."

According to Nadiah, Zaidin M. Nor is a household name in the local music scene. A well-known composer in his heyday during the 70s, Zaidin had composed songs for a number of famous bands who rose to stardom during the era such as Alleycats and Illusi. Most notably, some of the songs that Zaidin composed had won numerous prestigious Anugerah Juara Lagu awards in the past.

So what's next for Nadiah? After releasing her debut single, there is no turning back for this talented individual. She intends to carry on with her work in the music industry in addition to pursuing her academic interests in engineering.

Still in the thick of her internship programme in Indonesia, Nadiah has every intention to return here and help Cikgu Zaidin promote 'Oksigen'. "The song is now available on all digital platforms," said Nadiah. "I'll be going to local radio stations to see if I could get them to play my song. This is something that I never thought would be possible, but I'm so happy we came through."

Very nicely done, Nadiah! Indeed, Nadiah is another prime example of UTP's profound career connected learning and industry collaboration. From the work we do, we foster long-term relationships with our global social-impact partners to prepare our students, people and researchers as global citizens.

As a leading university in engineering, science and technology, our graduates are driven to exceed their professional objectives and contribute towards overcoming capability deficit across all sectors and industries.

